GEOLOGIC MAP OF A PORTION OF SOUTHEASTERN ALASKA

Scale 500 000

10 0 10 20 30 Miles

1929

Base compiled from maps by Alaskan Branch U. S. Geological Survey, U. S. Coast and Geodetic Survey and International Boundary Survey,

Geology by Arthur F. Buddington, 1921–1925 and Theodore Chapin, 1915–1917
Geology unknown in blank areas of map

EXPLANATION

BEDDED ROCKS

QUATERNARY

Qb — Basalt and tuff

UNCONFORMITY

TERTIARY

Boone

Tba, Tdb — Basaltic and andesitic lava with minor amounts of interbedded breccia and conglomerate (Tba), locally intrusive masses of diabase (Tdb)

Tra — Rhyolitic and andesitic volcanics, conglomerate, and locally intrusive sills of dacite porphyry

Tsc — Sandstone with basal and intercalated beds of conglomerate; thin coal seams at many places

UNCONFORMITY

JURASSIC OR CRETACEOUS

Lower Cretaceous (?)

Kgg — Slate and graywacke with occasional chert nodules and thin layers of impure limestone, locally intercalated beds of conglomerate

Jurassic or Cretaceous

Kgv — Greenstone volcanics (Predominantly hornblende and rarely augite porphyry breccia with intercalated beds of tuff and lava flows, black slate, and graywacke)

Kgs — Graywacke, dark-gray slate, and conglomerate, with some intercalated beds of tuff, thin layers of limestone, and small limestone lentils. May be in part same as Kag

UNCONFORMITY

TRIASSIC

Upper Triassic

Rav — Andesitic volcanics, including breccia with limestone matrix and lava flows locally interbedded with sediments

UNCONFORMITY

Rcl, Rs — Rcl, conglomerate, sandstone, and limestone; Rs, in Ketchikan district, slate with interlayered sandstone in upper portion

UNCONFORMITY

CARBONIFEROUS

Permian

Cpl — Limestone with intercalated layers of white chert

Cpc — Conglomerate, limestone, sandstone, andesitic and basaltic volcanics, and, locally, felsite volcanics

UNCONFORMITY

Mississippian

Cmc — Lower part, black thin-layered chert interbedded with coarsely crystalline limestone; upper part, interlayered chert, gray quartzite, and cherty limestone

DEVONIAN

Upper Devonian

Dulb — Limestone, sandstone, argillite, conglomerate, basalt, and tuff

UNCONFORMITY ?

Middle Devonian

Dl — Limestone

Ddv, Dct — Ddv, sediments, including graywacke, conglomerate, slate, limestone, and, locally, chert, with associated volcanics, including andesitic lava, breccia, and tuff; Dct, predominantly graywacke and tuffaceous beds

Da — Andesitic lava, breccia, and conglomerate with cobbles of limestone

Dss, Dsg — Dss, slate, limestone, and chert with interbedded andesitic volcanics; Dsg, conglomerate and graywacke

UNCONFORMITY

SILURIAN

Sgs — Predominantly graywacke; locally red, green-gray, and gray sandstone, or interbedded conglomerate and sandstone, or shale.

Sl, Sc — Sl, limestone, locally intercalated with thick coarse conglomerate, sandy beds, or argillaceous beds (Sc)

Sav — Andesitic volcanics and conglomerate, with some associated graywacke, black slate, limestone, and tuff

UNCONFORMITY ?

Sbs — Dark to black slate with intercalated beds of graywacke. May include some Ordovician

UNCONFORMITY ?

ORDOVICIAN

Lower and Middle Ordovician

Ogs — Indurated graywacke with associated dark slate, andesitic volcanics, thin-layered black chert, and layers of conglomerate and limestone. May include some Silurian

PROBABLY PRE-ORDOVICIAN TO DEVONIAN OR LATER

METAMORPHIC ROCKS

Wrangell-Berrilagigedo belt

gn, mb — Layered gneisses with intercalated beds of marble (mb); many beds with disseminated flake graphite

sph, md — Crystalline schist and phyllite with intercalated beds of marble (mb)

sph — Phyllite, quartz phyllite, foliated quartzite, argillaceous and micaceous phyllite, and, locally, slate

sls — Black slate and phyllite

Schistose greenstone and green phyllite interbedded with black and gray sericitic slaty phyllite and, rarely, with limestone and beds of schistose chert

Prince of Wales and Dall Islands

Wales group

gs, wl — Greenstone schist with intercalated or interbedded limestone

wl — Limestone

wsl — Schist with beds of limestone and slate

ws — Schist

UPPER JURASSIC OR LOWER CRETACEOUS

INTRUSIVE ROCKS

gr — Granite

gd, qm — Granodiorite (gd) and quartz monzonite (qm), locally approaching quartz diorite

qd — Quartz diorite; locally varying toward granodiorite

dt, md — Diorite (dt), monzodiorite (md), and quartzose variants; locally quartz diorite and granodiorite; includes small areas of gr, gd, and qd

gb — Gabbro and gabbro-diorite

ub, dn, hb, px — Ultrabasic rocks (ub); dunite (dn), pyroxenite (px), hornblendite (hb), and intermediate types

MINERAL DEPOSITS

× Gold predominating

⊗ Silver and lead (locally with gold and copper) predominating

◐ Copper predominating

△ Zinc predominating

▲ Nickel-copper

◆ Antimony

◒ Molybdenum

○ Iron

○ Marble

□ Gypsum

◨ Barite

◈ Garnet

⊖ Coal seam

● Spring